

**Claims**

I claim as deserving the protection of United States Letters Patent:

1. A larger food product formed from plural smaller food products, the larger food product comprising:

5       a first food product with at least one edge surface; and  
      a second food product with at least one edge surface joined with the first food product;

      wherein the first food product and the second food product are joined at their at least one edges whereby the first food product and the second food product are joined in a coplanar arrangement and whereby the first food product and the second food product together form a unitary larger food product.

15       2. The larger food product of claim 1 wherein the larger food product simulates a naturally occurring food product wherein the first food product comprises a first portion of the larger food product and the second food product comprises a second portion of the larger food product and wherein the first and second food portions are complementary.

20       3. The larger food product of claim 1 wherein the first food product and the second food product are joined by an edible binder or bonding agent.

25       4. The larger food product of claim 3 wherein the edible binder or bonding agent is chosen from the group consisting of guar gum, locust bean gum, Carrageenan gum, pectin, gum arabic, gum acacia, agar, cellulose derivatives such as carboxymethyl cellulose, cornstarch, potato starch, wheat starch, tapioca, egg albumen, cereals, dextrose, heat-coagulable proteins, water, alginates, and a combination of thrombin and blood plasma.

5. The larger food product of claim 1 wherein:

the larger food product comprises a butterflied larger shrimp product;

the first food product comprises a mother shrimp with a proximal end and a distal end prepared in a butterfly configuration by a dorsal butterfly slit along a portion of a centerline of the mother shrimp wherein the mother shrimp has a first butterfly half disposed on an opposite side of the centerline from a second butterfly half wherein a distal portion of the centerline is split thereby to allow at least a distal portion of the first and second butterfly halves to be separated from one another to form an open area;

the second food product comprises a first child product disposed in the open area between the first and second butterfly halves wherein the first child product is joined with the mother shrimp whereby the mother shrimp and first child product are joined in a coplanar arrangement and whereby the mother shrimp and the first child product together form the butterflied larger shrimp product.

6. The larger food product of claim 5 wherein the first child product comprises a shrimp that is prepared in a butterfly configuration with first and second butterfly halves coupled along a centerline.

7. The larger food product of claim 6 wherein the centerline of the first child product is generally aligned with the centerline of the mother shrimp.

8. The larger food product of claim 5 wherein the open area between the first and second butterfly halves of the mother shrimp has the shape of a wedge of a given size and wherein the first child product comprises a wedge-shaped product with a size approximately equal to the size of the open area between the first and second butterfly halves.

9. The larger food product of claim 8 wherein the first child product is quasi-T-shaped with first and second legs and a wedge-shaped base wherein the base comprises the wedge-shaped product disposed between the first and second butterfly halves and wherein the first and second legs of the quasi-T-shaped first child product overly the distal  
5 ends of the first and second butterfly halves of the mother shrimp whereby the larger food product simulates a shrimp that is wider and longer than the mother shrimp.

10. The larger food product of claim 5 further comprising at least a third food product that comprises a second child product.

11. The larger food product of claim 1 wherein:  
the larger food product comprises a peeled-round larger shrimp product;  
the first food product comprises a mother shrimp with a proximal end, a distal end, and a body portion with a centerline wherein the mother shrimp is prepared in a peeled-round configuration by a removal of at least a portion of a shell of the mother shrimp; and  
15 the second food product comprises a first child product with a proximal end, a distal end, and a body portion wherein the proximal end of the second food product is joined to the distal end of the first food product whereby the mother shrimp and first child product are joined in an endwise, effectively coplanar arrangement and whereby the mother shrimp  
20 and the first child product together form the peeled-round larger shrimp product.

12. The larger food product of claim 11 wherein the second food product comprises a shrimp with a centerline.

25 13. The larger food product of claim 12 wherein the first and second food products are joined with the centerline of the first food product aligned with the centerline of the second food product.

14. The larger food product of claim 13 further comprising at least a third food product that comprises a shrimp with a centerline wherein the centerlines of the first, second, and third food products are aligned.

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15. The larger food product of claim 11 wherein the distal end of the first food product is sloped relative to the body portion of the first food product whereby the first food product presents a greater surface area for joining with the second food product.

16. The larger food product of claim 15 wherein the proximal end of the second food product is sloped relative to the body portion of the second food product whereby the second food product presents a greater surface area for joining with the first food product.

17. The larger food product of claim 16 wherein the distal end of the first food product and the proximal end of the second food product are sloped at approximately complementary angles whereby the body portions of the first and second food products are disposed in an aligned relationship.

18. The larger food product of claim 17 wherein the second food product comprises a shrimp with a centerline and wherein the first and second food products are joined with the centerline of the first food product aligned with the centerline of the second food product.

19. The larger food product of claim 1 wherein:  
the larger food product comprises a shell-on larger shrimp product;  
the first food product comprises a mother shrimp with a proximal end, a distal end, and a body portion with a centerline wherein the mother shrimp is prepared in a shell-on

configuration; and

the second food product comprises a first child shrimp with a proximal end, a distal end, and a body portion with a centerline wherein the first child shrimp is prepared in a shell-on configuration;

- 5 wherein the proximal end of the second food product is joined to the distal end of the first food product whereby the mother shrimp and first child shrimp are joined in an endwise, effectively coplanar arrangement and whereby the mother shrimp and the first child shrimp together form the shell-on larger shrimp product.

10 20. The larger food product of claim 19 wherein at least a portion of the distal end of the first food product is sloped relative to the body portion of the first food product whereby the first food product presents a greater surface area for joining with the second food product.

15 21. The larger food product of claim 19 wherein at least the proximal end of the second food product is sloped relative to the body portion of the second food product whereby the second food product presents a greater surface area for joining with the first food product.

- 20 22. The larger food product of claim 21 wherein the sloped portions of the distal end of the first food product and the proximal end of the second food product are sloped at approximately complementary angles whereby the body portions of the first and second food products are disposed in an aligned relationship.

- 25 23. The larger food product of claim 22 wherein the distal end of the first food product and the proximal end of the second food product are correspondingly shaped in a male/female conical arrangement whereby a cone of the conical arrangement can

matingly join with a conical depression of the conical arrangement for joining the first and second food products.

24. The larger food product of claim 23 wherein the distal end of the first food  
5 product is formed into a cone and the proximal end of the second food product has a conical depression formed therein.

25. The larger food product of claim 22 further comprising at least a third food  
10 product that comprises a shrimp with a centerline wherein the centerlines of the first, second, and third food products are aligned.

26. A butterflied larger shrimp product formed from plural smaller food products,  
the larger shrimp product comprising:

15 a mother shrimp with a proximal end and a distal end prepared in a butterfly configuration by a dorsal butterfly slit along a portion of a centerline of the mother shrimp wherein the mother shrimp has a first butterfly half disposed on an opposite side of the centerline from a second butterfly half;

20 wherein a distal portion of the centerline is split thereby to allow at least a distal portion of the first and second butterfly halves to be separated from one another to form an open area;

a first child product disposed in the open area between the first and second butterfly halves wherein the first child product is joined with the mother shrimp;

25 whereby the mother shrimp and first child product are joined in a coplanar arrangement and whereby the mother shrimp and the first child product together form a butterflied larger shrimp.

27. The butterflied larger shrimp of claim 26 wherein the first child product

comprises a shrimp product wherein the shrimp product is prepared in a butterfly configuration with first and second butterfly halves coupled along a centerline.

5 28. The butterflied larger shrimp of claim 27 wherein the centerline of the first child product is generally aligned with the centerline of the mother shrimp.

29. A method for making a larger food product formed from plural smaller food products comprising the steps of:

providing a first food product with at least one edge surface;

providing a second food product with at least one edge surface;

joining the first and second food products with at least a portion of the at least one edge surface of the first food product joined to the at least one edge surface of the second food product by application of an edible binder therebetween;

thereby joining the first food product and the second food product in an effectively coplanar arrangement and thereby forming the first food product and the second food product into a unitary larger food product.

30. The method for making a larger food product of claim 29 wherein the larger food product simulates a naturally occurring food product wherein the step of providing a first food product comprises the step of providing a first food product comprising a first portion of the larger food product and wherein the step of providing the second food product comprises the step of providing a second food product comprising a second portion of the larger food product wherein the first and second food portions are complementary.

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31. The method for making a larger food product of claim 29 wherein:  
the larger food product comprises a butterflied larger shrimp product;

the step of providing the first food product comprises the steps of providing a mother shrimp with a proximal end and a distal end prepared in a butterfly configuration by making a dorsal butterfly slit along a portion of a centerline of the mother shrimp to form a first butterfly half disposed on an opposite side of the centerline from a second butterfly half, splitting a distal portion of the centerline, and separating at least a distal portion of the first and second butterfly halves from one another to form an open area;

the step of providing the second food product comprises the steps of providing a first child product and disposing the first child product at least partially in the open area between the first and second butterfly halves of the mother shrimp; and

the step of joining the first and second food products comprises securing the first child product at least partially in the open area between the first and second butterfly halves of the mother shrimp thereby joining the mother shrimp and first child product in a coplanar arrangement to form the butterflied larger shrimp product.

32. The method for making a larger food product of claim 31 wherein the step of providing the first child product comprises providing a shrimp prepared in a butterfly configuration with first and second butterfly halves coupled along a centerline.

33. The method for making a larger food product of claim 32 further comprising the step of aligning the centerline of the first child product with the centerline of the mother shrimp.

34. The method for making a larger food product of claim 31 wherein the step of separating at least a distal portion of the first and second butterfly halves from one another to form an open area comprises separating the distal portion of the first and second butterfly halves to form a wedge-shaped open area of a given size and wherein the step of providing a first child product comprises providing a wedge-shaped product with a size



approximately equal to the size of the open area and disposing the wedge-shaped product between the first and second butterfly halves.

35. The method for making a larger food product of claim 34 wherein the step of providing a first child product comprises providing a quasi-T-shaped product with first and second legs and a wedge-shaped base wherein the base comprises the wedge-shaped product disposed between the first and second butterfly halves and wherein the first and second legs of the quasi-T-shaped first child product overly the distal ends of the first and second butterfly halves of the mother shrimp whereby the larger food product simulates a shrimp that is wider and longer than the mother shrimp.

36. The method for making a larger food product of claim 29 wherein:  
the larger food product comprises a peeled-round larger shrimp product;  
the step of providing the first food product comprises providing a mother shrimp with a proximal end, a distal end, and a body portion with a centerline wherein the mother shrimp is prepared in a peeled-round configuration by removing at least a portion of a shell of the mother shrimp; and

the step of providing the second food product comprises providing a first child product with a proximal end, a distal end, and a body portion;

the step of joining the first and second food products comprises joining the proximal end of the second food product to the distal end of the first food product whereby the mother shrimp and first child product are joined in an endwise, effectively coplanar arrangement and whereby the mother shrimp and the first child product together form the peeled-round larger shrimp product.

37. The method for making a larger food product of claim 36 wherein the step of providing the second food product comprises providing a shrimp with a centerline and

wherein the step of joining the first and second food products further comprises joining the first and second food products with the centerline of the first food product aligned with the centerline of the second food product.

5           38. The method for making a larger food product of claim 36 wherein the step of providing the first food product comprises providing a first food product with a distal end that is sloped relative to the body portion of the first food product whereby the first food product presents a greater surface area for joining with the second food product.

10           39. The method for making a larger food product of claim 36 wherein the step of providing the second food product comprises providing a second food product with a proximal end that is sloped relative to the body portion of the second food product whereby the second food product presents a greater surface area for joining with the first food product.

15           40. The method for making a larger food product of claim 39 wherein the steps of providing the first and second food products comprise providing a first food product with a distal end sloped at an approximately complementary angle to an angle at which the proximal end of the second food product is sloped whereby the body portions of the first  
20           and second food products are disposed in an aligned relationship.

          41. The method for making a larger food product of claim 29 wherein:  
          the larger food product comprises a shell-on larger shrimp product;  
          the step of providing the first food product comprises the steps of providing a mother  
25           shrimp with a proximal end, a distal end, and a body portion with a centerline and preparing the mother shrimp in a shell-on configuration; and  
          the step of providing the second food product comprises the steps of providing a

first child shrimp with a proximal end, a distal end, and a body portion with a centerline and preparing the first child shrimp in a shell-on configuration; and

the step of joining the first and second food products comprises joining the proximal end of the second food product to the distal end of the first food product whereby the mother shrimp and first child shrimp are joined in an endwise, effectively coplanar arrangement and whereby the mother shrimp and the first child shrimp together form the shell-on larger shrimp product.

42. The method for making a larger food product of claim 41 wherein the step of providing the first food product comprises providing a first food product with at least a portion of the distal end of the first food product sloped relative to the body portion of the first food product whereby the first food product presents a greater surface area for joining with the second food product.

43. The method for making a larger food product of claim 42 wherein the step of providing the second food product comprises providing a second food product with at least a portion of the proximal end of the second food product sloped relative to the body portion of the second food product whereby the second food product presents a greater surface area for joining with the first food product.

44. The method for making a larger food product of claim 43 wherein the steps of providing first and second food products further comprise providing first and second food products with sloped portions of the distal end of the first food product and the proximal end of the second food product sloped at approximately complementary angles whereby the body portions of the first and second food products are disposed in an aligned relationship.

The first part of the paper is devoted to the study of the asymptotic behavior of the solutions of the system (1.1) as  $\epsilon \rightarrow 0$ . In the second part, we study the asymptotic behavior of the solutions of the system (1.1) as  $\epsilon \rightarrow 0$ . In the third part, we study the asymptotic behavior of the solutions of the system (1.1) as  $\epsilon \rightarrow 0$ .

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